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ABSTRACT

The Gifted Education Policy Studies Program was designed to address two issues: the status of state and local policies on the identification of gifted students from special populations (culturally diverse, children with disabilities, and economically disadvantaged); and the impact of educational reform movements (cooperative learning and middle schools) on services for gifted students. Content analysis of documents collected from each state concerning identification of gifted students revealed that inclusive policies were present, but the record for actual inclusion of special populations was poor. Site visits to three states (Arkansas, Ohio, Texas) with inclusive practices revealed that local leaders were able to take state help in the form of demonstration projects and seed money to create broader identification procedures. Barriers to more effective policies were identified, and model legislation was developed. Concerning the impact of middle schools on gifted education, a survey of 400 teachers revealed that gifted education specialists embraced ability grouping and rejected the position that being identified as gifted created social difficulties for students, while middle schools personnel felt the opposite. A survey of educators of gifted students and educators using cooperative learning revealed differences on almost every dimension concerning the value of cooperative learning. Case studies identified features of middle schools with strong programs for gifted students and features of programs that blend cooperative learning and gifted education. (Contains 42 references.) (JDD)

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Gifted Education Policy Studies Program

A JAVITS PROJECT: GIFTED EDUCATION POLICY STUDIES PROGRAM FINAL REPORT

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Executive Summary

The Gifted Education Policy Studies Program (GEPSP) at the University of North Carolina at Chapel Hill was designed to address two issues:

(1) The status of state and local policies on the identification of gifted students from special populations (culturally diverse, children with disabilities, and economically disadvantaged); and

(2) How educational reform movements (cooperative learning and middle schools) affect services for gifted students.

State Policies for Identification

Documents (laws, rules, regulations, guidelines, etc.) were collected from each state on the policies for identification of gifted students. A content analysis was conducted on data from all fifty states. The results seemed to indicate that permissive and inclusive policies regarding identification of gifted students were present in the vast majority of states. Despite this, the states had a poor record of inclusion of special populations (culturally diverse, economically disadvantaged, and disabled students) in their programs for gifted students (Coleman & Gallagher, 1992b). As part of this analysis, a matrix of promising practices was compiled from the state documents.

Three states (Arkansas, Ohio, Texas) were identified that had flexible policies on this issue and also large numbers of minority children in their school systems. GEPSP staff visited each of these three states and interviewed key personnel within the state Department of Education, local school personnel, and private citizens who were advocates for gifted students (Gallagher & Coleman, 1992).

It was found that each of these three states found different paths to a proactive strategy designed to take action to implement the policies for identification of gifted students from special populations. In one state, Ohio, the necessary leadership came from within the Department of Education; in another, Arkansas, it came from the community of private advocates who encouraged state action.

In each state, demonstration projects, seed money for local projects, and support of local initiatives encouraged a path of action beyond the mere words in existing state documents. Local leaders appeared able to take this amount of state help and create policies and procedures at the local level for broader identification procedures.

A similar content analysis of state documents was conducted two years after the original analysis to see if the considerable ferment from the educational reform movement had resulted in any major policy changes in the states. Some modest increases were found in the increased flexibility in definition and identification procedures in a few states (Coleman, Gallagher & Foster, 1994).

Several factors were identified as possible barriers to more effective policies. These were: a lack of clear statements of intent from state policy makers, concerns over "opening the door" to many other children as gifted (with ensuing negative budget implications), lack of adequate resources to handle the extended population, and the weak communication link between educators of gifted students and educators of other special populations.

One of the spinoffs of this interest in public policy was the design of a model piece of legislation (Foster, Gallagher, & Coleman, 1994) that became one of the products of GEPSP. This model legislation placed particular emphasis on policy related to

identification and was developed so that states interested in such policies could drawn upon some sections of the model legislation for their particular purposes.

Middle Schools and Gifted Students

The move from the junior high school to the middle school represents one of the more tangible evidences of recent eductional reform movements. The middle schools place greater emphasis on the affective life of the student, teacher team planning and programming, interdisciplinary curriculum, flexible time blocks, etc. One recent policy addition endorsed by many middle school leaders has been heterogeneous grouping. This endorsement has caused some alarm in educators working with gifted students, because these educators have been used to working with honors classes, advanced classes grouped by performance or ability, etc.

An attitude survey was developed with the aid of specialists in middle school and gifted education. This survey was then presented to a random sample of 400 teachers and other educators from four professional association membership lists relevant to the inquiry -- two groups from gifted education and two groups from middle schools associations. The results of the survey suggested some specific differences in the perceptions of educators of gifted students and the middle schools groups. In particular, the groups differed on the issue of grouping. The middle schools personnel rejected the idea that grouping students together was beneficial. Educators of gifted students embraced the idea of ability grouping as beneficial. Additionally, middle school advocates agreed with the idea that gifted students encountered social difficulties because of being identified as gifted. The educators of gifted students rejected this position (Coleman & Gallagher, 1992a).

The remainder of the differences between the survey responses of these two groups of educators were ones of intensity, with educators of gifted rejecting the idea that the middle school curriculum was challenging for gifted students, or that current programs for the gifted addressed the emotional development for gifted students. The middle schools groups agreed with these responses but not with the same intensity. The survey results indicated clear starting points for reconciliation and agreement on the need for increased communication and collaboration between middle school and education of gifted personnel. Personnel preparation was also identified as a major priority by both groups.

The GEPSP used the case study approach to study the blending of middle schools and strong programs for gifted students. First, we identified five schools that received high ratings from key personnel in the middle school movement and from educators of the gifted. These schools were visited by GEPSP staff who interviewed school staff, advocates, and other school personnel, in addition to observing classrooms and conducting student focus groups. On the basis of a cross-site analysis, it was concluded that successful sites involved well-trained personnel with a great deal of expertise in educating gifted students. An atmosphere of trust between administrators and teachers, as well as between teachers and students, appeared prevalent in these schools. Principals and teachers felt a sense of autonomy, which allowed them to make decisions without referring to "higher-ups." In most of the sites, there was clear teacher leadership and strong staff development.

The major conclusion from these case studies was that it was possible to blend major programs having a strong middle school philosophy with an active program for education of gifted students. This blending, however, did not happen serendipitously; it occurred as a result of concerted and continuous efforts by many staff members. There was also some form of ability grouping or performance grouping present in each of the schools (Coleman, Gallagher & Howard, 1993).

Cooperative Learning and Gifted Students

An approach (survey followed by case study) similar to that used to study the middle school issue was followed to study the blending of cooperative learning and the education of gifted students. An attitude scale was designed following the survey of key figures in the field as to the major issues to be solved. The survey was then sent to 400 educators randomly selected from membership lists of major professional organizations. As with the middle school survey, the return rate of the cooperative learning survey was over 75%, giving confidence in the representativeness of the sample.

The results of this survey revealed sharp differences between educators of gifted students and educators using cooperative learning. These differences appeared on almost every dimension of the attitude scale. Teachers and educators of gifted students agreed with the statement that the curriculum for gifted students was not challenging enough and that gifted students resent being the "junior teacher" in cooperative learning groups. While educators of the gifted had very little to say positively about cooperative learning, those educators identified as strongly in favor of cooperative learning were discovering many positive features to the use of cooperative learning. These polarized responses seemed to reflect already-formed opinions rather than being experience- or research-based (Gallagher, Coleman, & Nelson, 1993).

The five sites chosen for visits on cooperative learning went through a selection process designed to guarantee that the programs were well-regarded by leaders of the cooperative learning movement and also were accepted as solid programs in their own right by educators of gifted students. The cross-site analysis identified prior training as one key element in cooperative learning. The key element across programs was the presence of well-trained senior teachers in cooperative learning who were able to translate this issue to the local settings and who stood ready to aid less-experienced teachers if they ran into difficulty. Cooperative learning appeared to work best under conditions where it was used in homogeneous settings, although it was partially successful under heterogeneous settings as well, based upon the testimony of students and teachers. Gifted students were unreservedly in favor of cooperative learning when in was done in homogeneous groups and mildly in favor when in heterogeneous groups (Coleman, Gallagher, & Nelson, 1993).

The general conclusion from the experiences with the surveys and site visits was that it was possible to combine the education of gifted students with good programs representing the reform movement. Such blending, however, did not occur by accident. Rather, it was the result of intelligent planning and careful implementation of programs by staff representing both the reform movement and gifted education.

Possible Recommendations for the Future

(1) Continued advocacy and proactive work towards the identification of gifted culturally diverse, economically disadvantaged, and/or disabled students, drawing on and implementing current promising practices.

(2) Creating and using multiple vehicles for collaboration between educators in gifted and school reform areas at all levels, local, state, and national.

(3) Providing extensive personnel preparation opportunities on the needs of gifted students, with particular attention to gifted education in the context of school reform.

Two Major Issues

The Gifted Education Policy Studies Program at the University of North Carolina at Chapel Hill was established to analyze and uncover solutions to two major issues related to providing full educational services to gifted students. These issues are: (1) state and local policies regarding eligibility of gifted students from special populations (culturally diverse, disabled, and economically disadvantaged) for gifted programs; and (2) educational reform efforts (cooperative learning and the middle schools movement) that may affect services designed for gifted learners. This report will summarize the findings of the three years of project research and study.

A. State Policies on Identification Practices

One of the major policy issues in the education of gifted students is how to ensure full participation for all gifted students in special educational programs designed to maximize their potential. It has long been recognized that some highly able students who come from different ethnic and racial cultures, economically disadvantaged families, or who have disabilities (e.g., learning disabilities, blindness, deafness) may encounter severe obstacles when confronted with the traditional modes of identification of gifted students and, consequently, may not be found eligible for special programs.

Content Analysis of State Policies

Each of the states was asked to send documents that were relevant to identification issues (e.g., laws, guidelines, rules, regulations) of gifted students, with a particular emphasis on those who were culturally different, economically disadvantaged, disabled, or in some way "at risk" for non-identification if traditional identification procedures were used.

State-level policies related to the identification of gifted students were reviewed to determine their impact on children from special populations (e.g., culturally diverse, economically disadvantaged, and students with disabilities). An analysis of each state's documents was completed, looking at six major areas: legislation, definitions of gifted, standard identification practices, non-standard identification practices, due process and grievance procedures, and specific references to gifted students from special populations. The data from the initial analysis was verified by the state directors of gifted programs when draft reports were provided to them for their review.

This analysis revealed that in 1991 (Coleman & Gallagher, 1992b) there was a range of attention being given within state policies to these special populations of gifted students, and that state policies tend to be permissive and inclusive regarding identification and services. The response to gifted students with diverse needs took a variety of forms. Some states had developed communication, recruitment, and child-find strategies to increase public awareness about gifted programs among community members from special populations. Forty-three states had policies on screening to locate gifted students. Screening strategies should help to ensure that gifted students from special populations are not overlooked. These strategies can include checking all student files for automatic referral, increasing teacher awareness and expertise in recognizing "non-traditional" gifted students, and using student portfolios and autobiographies.

The formal identification, or placement strategies, suggested by the states often relied on the use of multiple criteria to locate gifted st dents. Although 49 states included measures of aptitude and ability in their identification strategies, other criteria are often suggested as well. Forty-six states incorporated "outside-of-school activities," "work samples," or "products"; 43 included measures of creativity; and many states encouraged input from teachers, parents, students, and other sources to assist with the decision-making. Additional ideas to aid in the decisions on placement in programs for gifted students

included the use of child study teams, portfolios, re-testing, alternative criteria, and pre-program trial periods to identify gifted students from diverse backgrounds.

In looking at legislative issues related to gifted students, 33 state had mandates for gifted education that are supported with often modest levels of funding. Fifteen states had no mandates for the education of gifted students (but urged it). A state mandate sets the goal of service and thereby permits advocacy groups to work on behalf of students who may be underserved.

The language of state documents was carefully analyzed to see which special populations were included. Forty states specifically mentioned culturally diverse gifted students, and 40 included economically disadvantaged youngsters. Students with learning disabilities were addressed by 40 states, and students with sensory and physical disabilities were mentioned by 36 states. The majority of states addressed this issue through the development of written policies that called for the recognition, identification, and provision of services to these students.

The overall findings indicated that state policies, as currently written, do not appear to be preventing full services to special populations. However, demographics on actual programs for gifted students indicate that we have not reached the goal of serving all gifted youngsters. Four possible barriers to full services for all gifted students were suggested: lack of local understanding of state policies, fear of overwhelming numbers if identification procedures are "opened," lack of resources to meet increasing and diverse needs, and lack of ownership on the part of individuals from special populations towards programs for gifted students. It was clear that merely placing policies on paper does not, by itself, guarantee that action will be taken.

In order to provide decision makers with information about current practices, we compiled a matrix (Figure 1) of current strategies. The matrix covers identification practices for each of the special populations: underachieving gifted, culturally diverse, English as a Second Language, Rural, economically disadvantaged, disabled, female gifted,

Figure 1

State Resource Guide of Current Strategies* for the Identification of Gifted Students from Special Populations

Special Populations

Promising Practices Related to:	Underachievers	Culturally Different	English as a Second Language	Rural	Economically Disadvantaged	Disabled	Females	Other
Child Find		VA			VA	VA		AR, ID, LA
Screening	AL, NC, WI	AZ, DE, MS, NC, SD, VA, WA, WI	AL, AZ, ID, LA, MS, NC, WI	WI	AL, DE, ID, MS, NC, OR, PA, RI, VA, WA, WI	AL, AZ, ID, NC, OR, PA, VA, WI	WI	DE, HI, ID, IL, IN, LA, ME, MN, NC, NH, NY, OK, PA, RI, SC, WI, WV
Identification/ Placement	IL, IN, SC, TX	GA, IA, IN, NJ	CT, IA, IN, NJ	IN	GA, IN, NJ	GA, IN, NC	IN	CT, GA, HI, IA, ID, IL, IN, LA, MA, MD, NJ, OH, OK, TX
Programs		NJ	CT, NJ		NJ			AR, IA, ID, IN, MA, ME, MN, NJ, NY, OH, TX
Parent Involvement	PA		ID			ID		AR, MN, NY, WI

* Provided for information only; not endorsed by the Gifted Education Policy Studies Program

and other special populations. The matrix presents what states are currently doing in the areas of child find, screening, identification, programming, and parental involvement. In addition to this matrix, the authors outlined specific strategies (see Table 1) to help school systems in their search for these "hidden gifted" students.

Case Studies of Three States

To more fully examine the uses of state and local policies in identifying "hidden gifted" students, we conducted site visits to three states that appeared to have large numbers of racial and ethnic minorities and also seemed to be doing a good job of identifying "hidden gifted" (Gallagher & Coleman, 1992). Ohio, Texas, and Arkansas were selected for the GEPSP site visits because of their commitment to policies regarding special populations. The three states agreed to participate in site visits to investigate the process of policy implementation, including the ways policies were developed, gained approval, and were applied at the local level. The site visits were conducted in the Spring of 1992 by Drs. Gallagher and Coleman, who spent two days in each state. The first day focused on policy development, and the second day focused on policy application. The State Directors of Gifted Education in each state set the agenda for interviews, and focus group meetings with key people at the local and state levels who were involved in policy development and application were held and the results were analyzed.

Individual profiles were completed for each state, and a cross-state comparison was done to identify overall patterns of factors influencing policy implementation. Thirteen influential factors were identified from the literature and past experiences: professional leadership, outside leadership, public attitude, bureaucratic structure, local initiative, flexible rules and regulations, informal relationships, higher education, economic status, the school reform movement, demonstration projects, seed money, and court actions. A rating of the level of actual influence that these thirteen presumed influential factors had on the state's policy development and policy application process varied depending on the

Table 1
Strategies for Discovering Gifted Students

Greater Public Awareness

- Establishing an advisory council with cross-cultural representation to assist with the development and monitoring of state policies relating to gifted students.
- Conducting a formal community awareness campaign to recruit support and resources for talent development.
- Conducting an annual "child find" in cooperation with community and other state agencies to locate gifted students who may have been overlooked.

Screening Procedures

- Screening all student files for indications of giftedness.
- Requiring a plan for staff development of regular education staff to increase their ability to recognize non-traditional gifted students.
- Encouraging the use of a checklist to help teachers recognize underachieving students who may be gifted.
- Developing student profiles and case study examples of non-traditional gifted students.
- Encouraging the use of autobiographies to assist with the identification of gifted students from special populations.
- Automatically referring further assessment of all students who can reach a certain score (i.e. 85th percentile) on standard tests.

Formal Identification Procedures

- Encouraging the establishment of child study teams to make the placement decision, design Individual Education Programs, and coordinate services for gifted students with special needs (including medical personnel, when needed).
- Using multiple identification criteria with the clause, "No single criterion should prevent identification. . . "
- Using portfolios of student work samples to document giftedness together with rating scales to assess the work in the portfolio.
- Developing guidelines on how to use "subjective" information to assist with placement decisions.
- Re-evaluating or re-testing students who show compelling reasons why their existing scores underestimate their true abilities (family crisis, language difficulties, illness, etc.).
- Automatically re-testing students who fall within one standard error of measurement below the score needed to qualify for program services.
- Using alternative identification methods to place gifted students from special populations into programs.
- Using a 'pre-program' trial period where students participate in experiences designed to see if they would benefit from inclusion in the program for gifted students.
- Developing a handbook on multicultural/non-sexist education for gifted students, with specific information on identification of special populations of gifted students.

Program Initiatives

- Encouraging local innovative programs for underserved gifted students (i.e., grants, awards, special honors).
- Encouraging alternative program options for students who are underachieving, but gifted.
- Assisting regular classroom teachers in meeting the needs of bright students who are not placed in the gifted program, and re-evaluating these students at a later time.
- Using mediation to settle disputes and grievances with parents, or others, over the selection process.

phase of policy implementation (differing for policy development -- the initial phase -- and policy application -- the final phase).

Strong leadership was essential during policy development; this leadership, however, could come from a small number of highly motivated people located either within or outside of the educational structure. Informal relationships established among this leadership pool also played a role in developing and gaining approval for the flexible policies on identification and programs. A favorable economic status in the state was helpful in allowing the initiation of new programs. Perhaps the most essential aspect of policy development, from the standpoint of special populations students, was the design of flexible rules and regulations, within a set of clearly articulated guidelines, that encouraged local decision-making and responsibility for meeting the needs of these students.

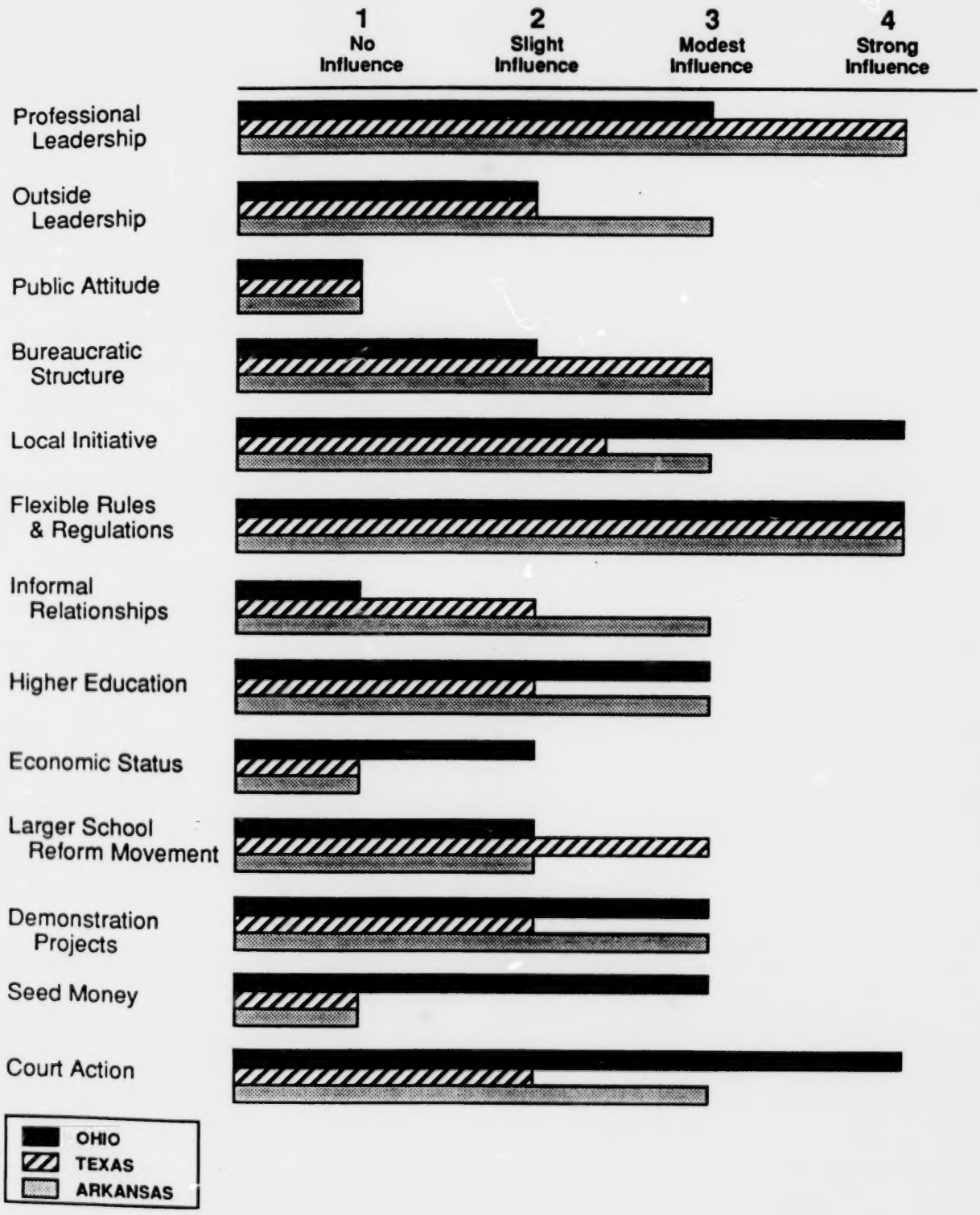
In the policy application phase, a greater number of factors became important and a wider circle of people became influential (See Figure 2). Collaboration of leadership at the state and local levels, both within and outside the educational system, facilitated policy application. In all three states, the bureaucratic structure of the educational system assisted with information dissemination through a network of regional centers or a cadre of regional representatives.

The role of demonstration projects, seed money, and local initiatives in encouraging an expanded concept of identification increased during policy application. Court actions on desegregation also became influential in liberalizing definitions; however, they were not necessarily the driving force behind the initiatives for inclusion of gifted students from special populations. Services for gifted children were influenced by larger school reform efforts like Outcome Based Education and site-based management; it is too early to tell the overall impact these initiatives will have.

Two possible inhibiting factors to the application of flexible identification policies emerged from the interviews and focus groups: (1) concern that a substantial increase in the number of students identified as gifted would not be accompanied by an increase in

Figure 2

Factors Influencing Policy Application:
Identification of Gifted Students from Special Populations



resources to provide services, and (2) fears that programs will have to answer to parents of children not from special populations who demand that their children be included, as well. These barriers will have to be dealt with before universal acceptance of such policies is likely to occur.

Recommendations by the investigators to states looking to encourage the application of policies regarding identification of, and services for, gifted students from special populations included:

a. Making a clear, strong, and long-term commitment at the state level;

b. providing support to local districts through additional resources and expertise;

c. creating flexible guidelines that require local districts to develop individual plans for policy application; and

d. creating and cultivating collaborative networks among higher education, educators, advocacy groups, and leaders outside of the field of education to facilitate policy application.

(Gallagher & Coleman, 1992)

The movement toward full services for gifted students from special populations is clearly articulated in the policies at the state level; nonetheless, it is at the local level that these policies touch the lives of children. If state policies are to be more than words on paper, then substantial resources and technical assistance must be made available to educators at the local level to help them transform these written state policies into active educational strategies that will ensure full services to all gifted students.

Updated Content Analysis Policy Review

Approximately two years after the original policy review of the fifty states was completed, the GEPSP staff asked for the state directors cooperation in updating the

original data. The result was an updated report on state policies for the fifty states (Coleman, Gallagher, & Foster, 1994). This was particularly important in view of the major policy changes and the expanding reform movements, which appeared to be creating many educational changes throughout the country (Nelson, Gallagher, & Coleman, 1993).

Currently, 60% of the states have a state mandate for programs for gifted students -- a loss of one state from the earlier report. In terms of a state coordinator, three states (a loss of two) have not assigned responsibility for gifted programs to a specific individual, and two fewer coordinators are now under special education in the state administrations than was previously the case.

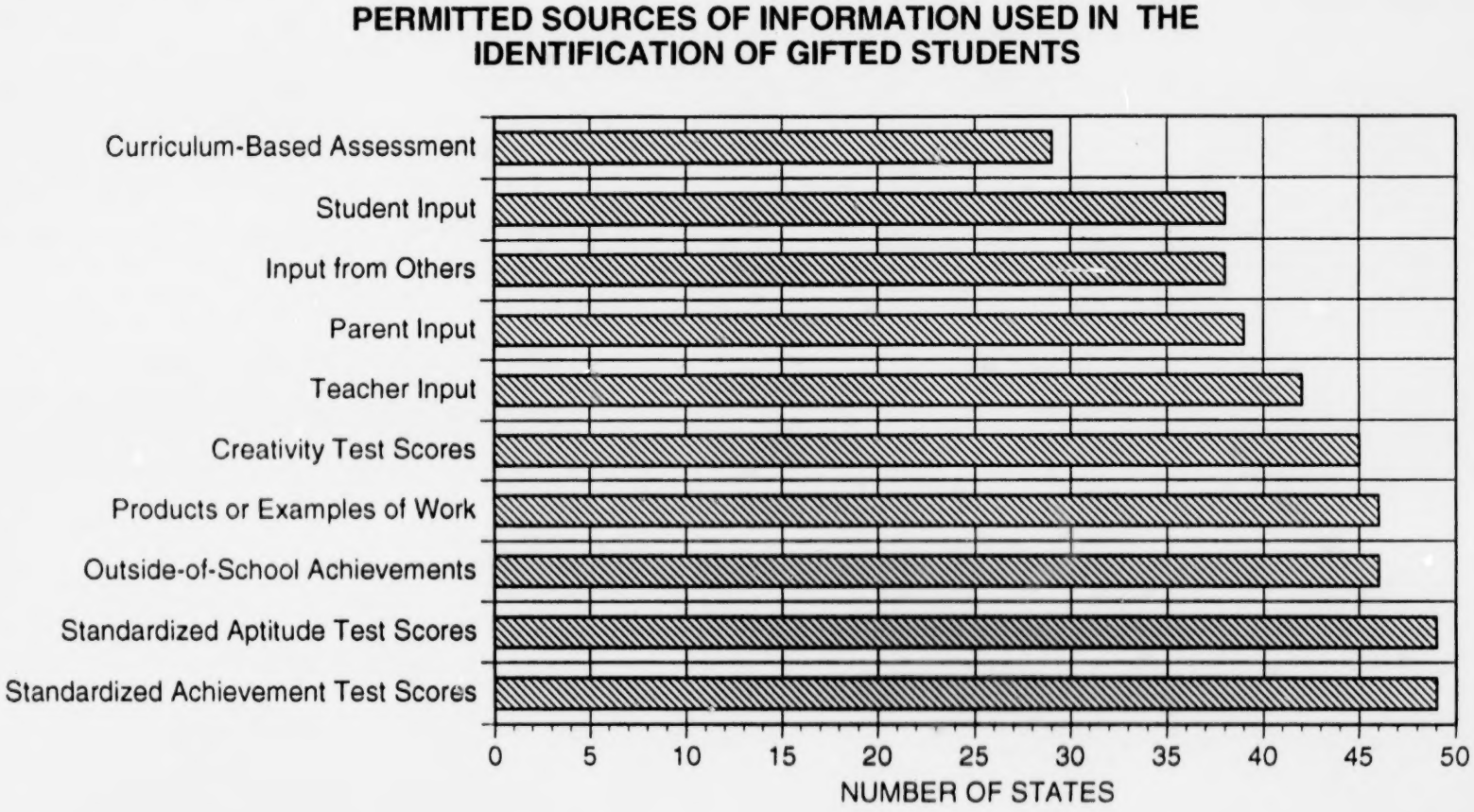
The increased interest in programs for gifted students from special populations can be noted by the fact that three more states now include special reference to these students than did before. Screening information has been broadened in several states to include parent nominations, creativity tests, work samples, and curriculum-based assessment.

Also broadened has been the allowance for teacher input, parental input, and student input in making placement decisions; this represents part of the increased interest in identification of gifted students from special populations (See Figure 3). Two or three states also included specific reference to economically disadvantaged students and to gifted students with disabilities.

The overall findings indicate an increased sensitivity to gifted students from special populations, but it is clear that such populations remain underserved. This probably highlights the idea that policies at the state level are not necessarily accurately reflected by local practices. Several factors were considered as possible barriers (Coleman, Gallagher, & Foster, 1994):

1. Communication of Policy intent. There is sometimes a gap between the intent of state policies and the local districts interpretations of these policies. The need for clear communication from state level policy makers regarding what is permitted at the local level may assist with the development of local initiatives for these students.

Figure 3


PERMITTED SOURCES OF INFORMATION USED IN THE IDENTIFICATION OF GIFTED STUDENTS
Curriculum-Based Assessment
Student Input
Input from Others
Parent Input
Teacher Input
Creativity Test Scores
Products or Examples of Work
Outside-of-School Achievements
Standardized Aptitude Test Scores
Standardized Achievement Test Scores
0
5
10
15
20
25
30
35
40
45
50
NUMBER OF STATES

2. Concern over numbers of students. There seems to be concern from some educational administrators that "opening the door" to non-traditional identification would result in substantially increasing the numbers of students and the costs for educational programs for gifted students, which are already underfunded.

3. Availability of adequate resources. Some local districts may feel that they lack the resources, time, personnel, and expertise to extend gifted educational services to additional students whose needs are more diverse.

4. Building bridges for special populations. The relationship between school and populations that are economically disadvantaged and culturally diverse has often been tenuous. There may be an even weaker link with programs for gifted students. Establishing a sense of "right to access" to programs designed for gifted students may increase inclusion of these students.

These are legitimate difficulties facing local districts. At this time, we do not know which, if any, of these issues affects the numbers of gifted students from special populations receiving services. We do know that finding, identifying, and serving these students is labor intensive and requires a strong commitment of effort and resources. The charge to provide an appropriate education for all students, however, includes a responsibility to look for creative and effective solutions to respond to the needs of the gifted underserved.

Model Legislation

One of the advantages of conducting a study on the policies of the fifty states is that it gives a chance to see what some of the most cogent and well-stated provisions have been across the nation on this topic of programs for gifted students. With the leadership of an aspiring law student, Andrew Foster, we have tried to synthesize appropriate sections of these state laws into a model legislative plan for states (Foster, Gallagher, & Coleman, 1994). This plan is not presented with the notion that some state might adopt it as a whole

for their own legislative base on this topic. We do hope, however, that some sections of this plan might appeal to states and help them achieve their purposes more readily.

Most legislative language owes its existence to prior legislation developed elsewhere, language used as a template from which to design the new legislation. This language is inevitably modified to meet the special needs of the particular community or state involved. The current model places a special emphasis on the identification of "hidden gifted" students, representing a current interest. The authors hope that this legislative outline can be useful to those interested in proceeding on this issue.

B. Middle Schools and Gifted Students

The second major purpose of the GEPSP was to determine how to most effectively bring together important elements of the new educational reform movement and education of gifted students. The Middle School Movement traces its roots back to the Junior High School Movement of the early 1900s, with its attempt to more fully address the needs of students during their transition from childhood to young adulthood (Lounsbury & Vars, 1978). It was during the 1960s, however, that the education of preadolescents underwent a refocusing that has now been firmly established as the current Middle School Movement (National Middle Schools Association, 1982). The recognition that children face many challenges during early adolescence (ages 10-15) as they grow to young adulthood is paramount to the current Middle School efforts (National Association of Secondary School Principals, 1985).

In an attempt to gain independence and establish autonomy, middle grades youngsters are renegotiating their relationships with parents and adults and focusing their energy on adaptation to various peer groups (Dorman, 1981). The physical changes that preadolescents encounter create further challenges that may tax their social and emotional adjustment (Carnegie Council on Adolescent Development, 1989). With these transitional challenges come a variety of educational needs requiring a greater diversity of educational offerings to accommodate the widened range of developmental progress that preadolescence spans (Dorman, 1981). When we include gifted intellectual abilities as one of the developmental areas of concern, we increase the need for diversity in educational offerings, and the task of providing appropriate educational experiences becomes more complex (Rakow, 1989; Tomlinson, 1992; Kulik & Kulik, 1990; Perry & Hoback, 1980).

Attitude Survey -- Middle Schools

With the transformation to the "middle school," there has been a shift in the structure of educational programming for gifted middle grades learners, and this shift has,

in some cases, been the focus of concern and debate within the educational community (Rakow, 1989; Sicola, 1990; Xenos-Whiston & Leroux, 1992; Allan, 1991; Epstein & MacIver, 1990; George, 1988; Oakes, 1985). The tone of these debates has ranged from constructive to hostile, and it seemed for a time that educators from both groups (middle schools and gifted education) were drawing the wagons round and preparing to "protect their territories." This response, occurring in spite of the lack of research evidence related to the efficacy of actual practices, has done little to foster productive communication or improve services for gifted middle grades learners (Coleman & Gallagher, 1992a).

Development of the Attitude Survey. In order to frame the critical issues related to the education of gifted middle grades learners, we sent an open-ended questionnaire to 25 key people selected from both the middle school movement and the field of gifted education (Coleman & Gallagher, 1992a). The questionnaire asked each respondent to identify five areas of concern that needed to be addressed when blending the goals of middle schools and programs for gifted students. We reviewed the responses to these questionnaires and identified the following areas of concern:

1. What grouping strategies are most appropriate for gifted middle grades learners?
2. What identification strategies are most appropriate for gifted middle grades students?
3. What curriculum modifications should be made to meet the needs of gifted middle grade students?
4. What steps should be taken in the area of teacher preparation?
5. What kinds of program evaluations should be conducted?
6. What steps should be taken to ensure that social and emotional needs of gifted middle grade students are met?

We used these six areas as the basis for developing and clustering the individual stem items on the survey. We wrote stem items to reflect the areas of concern and then

compiled a draft survey based on those items. We then sent the draft survey out to the initial respondents of the questionnaire, asking for suggestions for improving the survey instrument, and made further minor adjustments based on those suggestions.

The survey focused on six interest clusters: (1) grouping strategies, (2) identification issues, (3) curriculum modifications, (4) teacher preparation, (5) program evaluation, and (6) addressing the social/emotional needs of gifted students. The first section included 23 Likert scale questions reflecting these six areas of concern, which asked participants to rate their opinions from 1 (strongly disagree) to 4 (strongly agree). The second section of the survey asked respondents to select their top three concerns (of the six cluster areas) and to rank their selections by priority. The third and final section invited respondents to provide comments or additional thoughts on the needs of gifted middle grades learners.

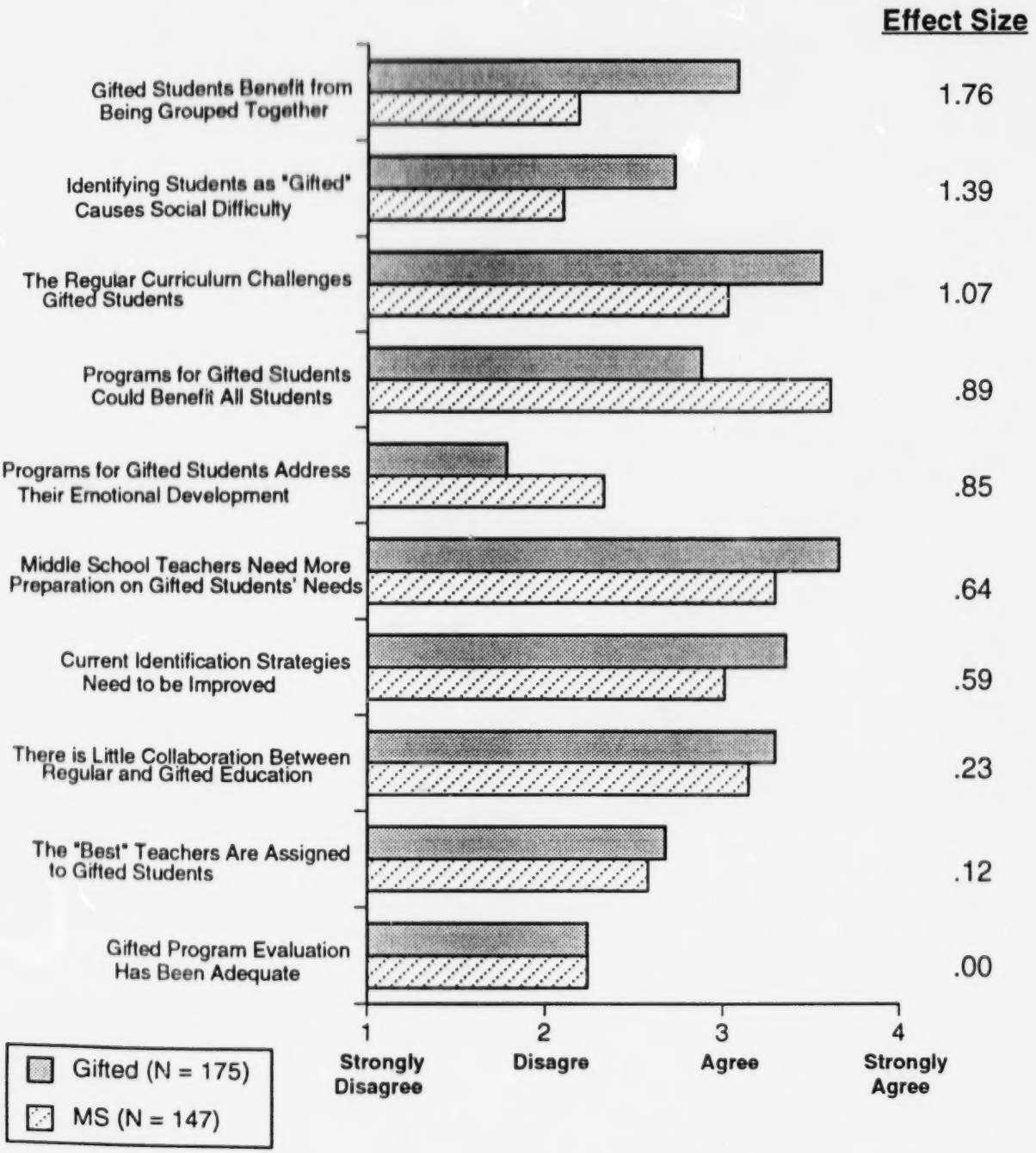
We sent the survey to 400 participants; 100 randomly selected from each of four mailing lists: The Association for the Gifted (TAG), The National Association of Gifted Children (NAGC), the National Middle School Association (NMSA), and the Association for Supervision and Curriculum Development (ASCD). The return rate of 84% showed high interest in the topic and gave us added confidence in our findings.

We split the six original clusters into 10 clusters after examination of item interrelationships. The 10-item groups were: (a) grouping practices, (b) social development, (c) curriculum, (d) program differentiation, (e) emotional support, (f) teacher preparation, (g) identification issues, (h) collaboration, (i) teacher assignments, and (j) program evaluations.

The effect size statistic was used to provide a description of how different the groups really are. Effect size is determined by dividing the differences in group means by the total group standard deviation. An effect size of .8 is considered to be large. An effect size of .5 is moderate, and an effect size of .2 is relatively small (Cohen, 1988). Figure 4 shows the effect sizes of the ten clusters.

Figure 4

Comparisons of Means for Gifted and Middle School Respondents on Survey Clusters



1. Grouping Practices. The summary statement that typified this cluster was:

   GIFTED STUDENTS BENEFIT FROM BEING GROUPED TOGETHER

   This issue showed the widest discrepancy between the two groups. Educators from the middle school group felt that gifted students may not benefit from ability grouping, whereas educators from the gifted group felt that grouping was important in meeting the needs of gifted learners. The effect size of 1.76 indicates that these are markedly different viewpoints on this issue.

2. Social Development. A summary statement for this cluster was:

   IDENTIFYING STUDENTS AS GIFTED CAUSES SOCIAL DIFFICULTY

   Educators from the middle school agreed with this statement. Their feelings seemed to be that the "gifted" label and accompanying special program often create social adjustment problems for gifted students. The educators of gifted students disagreed with this statement, feeling that "giftedness" does not necessarily interfere with social development and that the label and services provided assist gifted students with their social adjustment. An effect size of 1.39 indicated a major separation in the feelings of the two groups.

On the remaining clusters, the differences indicated that the groups had the same general opinions (positive or negative) on these issues, but differed in how strongly they held these opinions.

3. Curriculum. These items addressed whether or not the regular middle school curriculum could meet the needs of gifted students. The summary statement typifying this cluster was:

   THE REGULAR MIDDLE SCHOOL CURRICULUM IS CHALLENGING FOR GIFTED STUDENTS

Both groups felt that the standard curriculum is not challenging enough for gifted students; however, the strength of this perception varied by group. Although the middle school educators disagreed with this statement, the educators of gifted students "strongly" disagreed. With an effect size of 1.07, this difference in intensity seemed important.

4. Program Differentiation. The summary statement for this cluster was:

THE PROGRAM DESIGNED FOR GIFTED STUDENTS COULD BENEFIT ALL STUDENTS

The middle school educators voiced strong agreement with this sentiment, whereas the educators of gifted students expressed mild agreement, feeling that, to some extent, components of the program for gifted students would be good for other students, as well. The effect size of .89 does indicate that the two groups differed in their intensity of agreement with the statement.

5. Emotional Support. The summary statement for this cluster was:

CURRENT PROGRAMS FOR GIFTED ADEQUATELY ADDRESS EMOTIONAL DEVELOPMENT FOR GIFTED STUDENTS

Both groups agreed with this statement. The educators of the gifted, however, strongly agreed, feeling that programs for gifted students do, in fact, address the emotional needs of the students and that sufficient social support and attention to their affective development is included in programs for gifted students. The large effect size (.85) indicated that the intensity of feelings differs for the two groups.

6. Teacher Preparation. This set of items addressed whether or not teachers of middle grade students have enough preparation to meet the needs of gifted students. The summary statement was:

TEACHERS AT THE MIDDLE GRADES NEED ADDITIONAL STAFF DEVELOPMENT IN THE CHARACTERISTICS AND NEEDS OF GIFTED STUDENTS

Both groups agreed with this statement, with the teachers of gifted students strongly agreeing. The effect size of .64 indicates a moderate difference in intensity of agreement between the two groups. this idea seems to be a point of mutual concern and may well be a point of future collaboration, as well.

7. Identification of Gifted Students. This cluster looked at two issues -- the failure of current practices to recognize underachieving gifted students, and the need for student identification in order to assure appropriate services. The summary statement was:

CURRENT IDENTIFICATION PRACTICES NEED TO BE IMPROVED

There was overall agreement in this area. However, the focus was slightly different. The middle school educators felt that current practices overlook many students, whereas the educators of gifted students focused on the need for identification to assure services. The moderate effect size of .59 indicates that the groups reported fairly similar views on these issues.

8. Collaboration Between Regular and Gifted Education. The summary statement was:

LITTLE COLLABORATION TAKES PLACE BETWEEN EDUCATORS IN REGULAR AND GIFTED EDUCATION ON CURRICULUM DEVELOPMENT

This area seemed particularly important, given the middle schools philosophical emphasis on interdisciplinary units and the inclusion of thinking strategies within the curriculum. Both of these areas have been extensively used in planning differential education for gifted students. The groups agree that little collaboration has taken place, and the effect size (.23) indicated that their feelings are quite similar on this issue. Both groups seem to feel that collaboration would be mutually beneficial.

9. Teacher Assignments. The summary statement was:

THE "BEST" TEACHERS ARE ASSIGNED TO TEACH THE GIFTED STUDENTS

We included this statement because it is a complaint sometimes voiced; however, the group responses indicated neither agreement nor disagreement. Both groups fell in the area between agreement and disagreement, indicating that excellent teachers, as well as poor teachers, can be found in all areas of education. The effect size of .12 indicated no real difference between the two groups on this item.

10. Program Evaluation. The summary statement was:

EVALUATION OF GIFTED PROGRAMS HAS BEEN ADEQUATE

Both groups disagreed with this statement, indicating that program evaluation is an area that needs attention, and there was no difference between the two groups on this cluster.

On the ranking of most important issues, the groups were also similar. The top three concerns of the middle school educators were: improved curriculum, attention to grouping practices, and teacher preparation. The educators of gifted students ranked curriculum, teacher preparation, and appropriate identification as their top three. These results again suggest that we need to pay further attention to appropriate grouping strategies, and that collaborative efforts should address curriculum differentiation and teacher preparation as priority areas (Coleman & Gallagher, 1992a).

The individual comments of the respondents made it clear that there was considerable sympathy for the other perspective; many middle school respondents recognized the special problems created by gifted students, and many educators of the gifted recognized the benefits of the middle school programs.

The survey results indicated some clear starting points for communication and collaboration between middle school and gifted education. Although the focus of this report has been on the needs of gifted students, we understand that many of the following suggestions would be appropriate for all middle grade students:

1. Initiating joint efforts between middle school and gifted educators to provide teacher preparation to ensure that all middle school teachers have the knowledge and skills necessary to meet the needs of gifted middle grade students.

2. Collaborative interdisciplinary curriculum development with a two-fold focus: (a) strategies to ensure an appropriate pace and challenging level of learning for gifted middle grade learners, and (b) ways to extend some of the experiences provided through the gifted program to other students who could benefit from them (e.g., activities to enhance problem solving, enrichment field trips, opportunities for independent/interest-centered learning).

3. Creating ways, at the building level, to address the affective needs of middle grade gifted students through teaming, counseling programs, and advisee-advisor relationships designed to assist gifted youngsters with their social and emotional growth.

4. Exploring a variety of ways to group students for instructional purposes that match the needs of the students and the requirements of the curriculum to ensure challenging experiences for gifted students.

5. Designing and using program assessment strategies that can measure the full range and depth of outcomes for gifted students in order to evaluate the effectiveness of services for gifted middle grade learners.

It is reassuring to note that educators from both middle schools and gifted backgrounds share many of the same concerns. We believe that if we combine the knowledge and expertise of both groups, the result will be an exciting collaboration that can benefit many students.

Case Studies -- Middle Schools & Gifted Students

Our first task was to locate schools that represented the best of the middle school philosophy combined with appropriate services for gifted students. We also sought diversity in size of schools and a variety of service delivery models.

Nomination forms for potential schools were sent to board members of the National Middle Schools Association (NMSA), the Association for Supervision and Curriculum Development (ASCD), The Association for the Gifted (TAG), and the National Association for Gifted Children (NAGC). Key people in each of the 50 state Departments of Education were also sent nomination forms. State coordinators of gifted education were asked to make nominations in conjunction with their middle school colleagues.

Selection of the Sites

We received 24 nominations from 12 different states. Although we realized that we did not have a complete list of schools that met our criteria, we felt we had an ample pool of candidates that qualified for our study. From this pool we screened out those nominations with grade configurations other than 6th, 7th, and 8th -- the most typical middle school configuration. Two schools were dropped due to their grade configurations; three schools were dropped because they were still using the junior high school organization.

We then looked at whether the remaining schools met the criteria for nomination, and found that all did. The next part of the selection process involved follow-up documentation of each school's success. Phone calls were made seeking specific information both from the school's personnel and from knowledgeable informants (e.g., advisors from the NMSA, or the state Departments of Education). We felt that this verification was essential to ensure that each of the schools selected would be a true example of "best practices" in blending services for gifted students with the middle school model. When this process was completed, we had 13 schools from which to select.

At this point, we began to look at school location and service delivery model. We considered different combinations of schools in order to get the most diverse grouping. Out of this process, we were able to select five schools -- two urban, two suburban, and one rural -- that used a variety of gifted program models. All five sites agreed to participate in the study.

Site Visits

We scheduled the visits so that two days could be spent at each of the five sites. A team of 2-3 researchers visited each school. For consistency, one of the researchers visited all of the sites, and two other investigators participated in three visits each. During the visits, we sought a variety of information about how the school addressed the needs of gifted middle grade learners. This information was gathered in the context of how the school program was established and what the overall school program was like. We used several data gathering techniques to form as complete a picture of the school as possible.

Interviews with Key People. We interviewed key people who were involved in the establishment of the school as a middle school, and/or who were instrumental in shaping the school's services for gifted learners. An interview protocol was used to guide questions, but the interviews were allowed to develop naturally without moving mechanically from one question to another. The protocol served to remind the interviewer of topics not yet covered in the free-ranging interview. At each location, the people interviewed differed depending on who the key players had been. In every case, we interviewed the principal and the coordinator of the gifted program. Other persons interviewed included members of the central office staff, guidance and counseling personnel, lead teachers, and, in some cases, parent/community advocates.

Focus Groups. Discussions were structured through a focus group protocol to elicit the perspectives of separate groups of teachers, parents, and students (Morgan, 1988). In each of these group discussions, we asked participants to tell us what the program was like,

how they viewed its strengths and weaknesses, and what they would advise others who were interested in developing similar programs. The groups were made up of 8-10 participants and the questions were used as a stimulus for discussion among members. Each focus group discussion lasted approximately 45 minutes.

Observations. In addition to the interviews and focus group discussions, we spent time observing in classrooms to learn how the program was implemented. We observed in a variety of class structures, subjects, and grade levels. The observers followed a format that allowed them to note various aspects of middle school programming and to note ways that gifted and talented students' needs were addressed. In most instances, we were able to discuss these observations with teachers to see whether they had been satisfied with how the lesson had progressed. At some sites, we observed teacher planning sessions to get a sense of how this contributed to reaching the educational goals of the school.

Document Review. Beyond the information collected on-site, we used the information provided to us by schools in the form of reports, self-studies, handbooks, vitae, curriculum plans, evaluation reviews, and program guidelines to complete the school profiles.

Data Analysis. At the completion of each site visit, individuals on the visitation team compiled their own field notes, reflecting what they had learned from the observations, interviews, focus group sessions, etc. From these notes and visiting teach discussions, a single profile was developed for each school.

This profile was then sent back to each school for verification and comment. The schools responded to the profiles, offering minor corrections and/or adjustments, and the profiles were revised based on that feedback. Individual profiles are presented as a part of the results of this report. These profiles became central documents from which to identify the key factors at each site that seemed to contribute to the school's success.

Factors that were identified as potentially important at individual sites included: leadership, commitment to gifted students, staff development, autonomy, availability of

resources, attitudes within school, curriculum differentiation, affective programming, teaming, written plans, and evaluation strategies. Each of these factors was further broken into components that looked at specific aspects of each area.

A four-level rating scale was then developed to rate these factors with regard to the influence they had at each of the school sites. The ratings were based on the following criteria:

A. Factor was critical to the success of the school program. Without the presence of this factor, it would be doubtful that the program could succeed.

B. Factor was important in shaping the school's success and in influencing the overall program.

C. Factor had a moderate level of influence on the outcome of the program, but the role played by this factor was limited.

D. Factor had an insignificant role, or no role, to play in the program's outcome.

Ratings were decided through staff consensus. During these discussions, considerable time was taken to validate each of the ratings using field notes, school profiles, and any necessary additional information. A cross-site analysis was then prepared through the development of a word table (Yin & White, 1984).

There was substantial agreement among the three visiting team members on the individual ratings and consensus was easily obtained in most instances. The major problem seemed to be when distinguishing between categories B (important) and C (moderately important); there was some question about whether some factors were important or were merely contributing to the outcome. Differences were reconciled by going back to original notes and sources.

The description of the individual sites can be read in the extended report (Coleman, Gallagher, & Howard, 1993). They confirm the judgement of the nominators, and were impressive examples of the various types of service delivery.

Cross Site Results. The results of the five schools were combined into a summary table (See Figure 5). From this combined table, it was possible to track cross-site trends.

School site administrators played a key role in program success. In these schools, there was a clear commitment to both the middle school philosophy and to providing a challenging environment for all students, including gifted students. Principals and teachers alike indicated that they felt a sense of autonomy; that is, they felt empowered to make decisions and to create learning environments that promoted student achievement.

Teachers and students were enthusiastic about, and committed to, their school programs. An atmosphere of trust pervaded among administrators, teachers, and students. No "us versus them" attitudes divided the school communities we visited. At each site, there was at least one person who had a great deal of expertise at meeting the needs of gifted students. The presence of this individual at each site seemed critical to program success. Also seen as critical to success was the provision of some form of curriculum differentiation for high ability students. The two areas of differentiation identified at all of the schools were ability/performance grouping for instruction and enrichment opportunities.

Other factors varied in their level of importance at the different sites. Teacher leadership, school site commitment to gifted students, staff development on gifted education, planning time, and team teaching were important variables at four of the five sites. A written plan for gifted programs was found in four of the five schools, as were several forms of curriculum differentiation.

The study also looked at the type of service delivery model(s) promoted at each school (e.g., "pull out" classes, separate classes, team clusters). In one school, pull-out classes were scheduled on a rotating basis so that students did not miss regular classes more than once a week. In another school, the gifted class was taught during a school enrichment period in which all students participated in some form of enrichment class. Separate classes of gifted students were used in two schools, while three schools placed all

Figure 5

Key Factors Influencing the Success of Middle School Programs for Gifted Students*

	A (Critical)	B (Very Important)	C (Somewhat Important)	D (Little or No Importance)
1. Leadership				
Central Office Administration	••		••	•
School Site Administration +	•••	••		
Teachers	••	••	•	
Parents/Advocates			••••	•
2. Commitment to Gifted Students				
School Site	••	••	•	
School System	•	•	•••	
3. Staff Development				
Middle School Model	•••		••	
Gifted Learners	•	•••	•	
4. Autonomy				
Administration (School Site) +	••••	•		
Teachers +	•••	••		
5. Availability of Resources				
Materials/Physical	••	•	•	•
Expertise/Human +	••••	•		
Time	•••	•	•	
Community	••	•		••
6. Attitude Within the School				
Enthusiasm (Students) +	•••	••		
Enthusiasm (Teachers) +	•••	••		
Trust +	••••	•		
Commitment to School +	••	•••		
7. Curriculum Differentiation				
Instructional Grouping (Ability/Performance) +	••••	•		
Mentor Programs	•		•	•••
Interdisciplinary Units	•••		•	•
Flexible Pacing	•	•••		•
Enrichment +	••••	•		
Independent Studies	•	•	••	•
Advanced Content (Sophistication)		••••	•	
Thinking Strategies	••	••	•	
8. Affective Program				
Counseling	•	••	••	
Advisor/Advisee	•	•	•	••
Group Work	•	••		••
Families/Teams	•		••	••
9. Teaming: Teachers	•••	•	•	
10. Written Plan for Gifted Students	••	••		•
11. Evaluation	••	•	•	•

* Each dot (•) represents one school

+ shaded descriptions indicate factors that were critical or very important in all schools

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the students identified as gifted on the same team. The one common element in the schools was that students were grouped by ability and/or performance for language arts and mathematics instruction.

The major finding of the study was that it is possible to blend appropriately differentiated services for gifted students into schools operating within an authentic middle school paradigm. A number of factors were identified that appear crucial to blending the two initiatives. However, there was enough variance in other factors to suggest that approaches can be highly individualized and still lead to successful collaboration.

C. Cooperative Learning and Gifted Students

The emergence of cooperative learning (CL) as one of the mainstays of the reform and restructuring movement in American education has been a clear indication that many educators wish to see change in both the instructional strategies, or teaching methods, and in the way we structure our schools, as exemplified by the middle school and site-based management movements.

The CL movement has several acknowledge leaders, including Robert Slavin (1988), David and Roger Johnson (1989, 1990), and Spencer Kagan (1990b), each of whom has a somewhat different approach to defining and using cooperative learning. Despite these variations, the basic concept of CL is to establish small groups of students (two to six) to address a common task, with an emphasis not only on lesson content, but also on learning the social skills needed for group interaction. Cooperative learning stresses social skills such as training students to work cooperative together, to praise one another, and to check each other's work and progress. In most cases, these small groups are formed heterogeneously by ability, gender, race, etc.

There are many variations on cooperative learning activities. Jones (1991) described three identifiable models, as follows:

> Student Teams Achievement Division (STAD) -- The teacher makes a traditional presentation. After students study together in cooperative teams, they take individual tests. Points are given for improved achievement, with the top team being recognized.
>
> Jigsaw -- Each student on a team is assigned a different topic on which to become an "expert." The student experts from each team meet to explore their common topic. These experts then return to their respective teams and teach that topic to teammates. Individual tests and group recognition are given.

TEAMS/GAMES/TOURNAMENT -- Traditional classroom instruction is presented to all students, followed by team study in which each team focuses on helping its members master the material. Students then compete against students from other teams. Points are given to teams for the number of correct answers given by the team members, and team points are averaged. The top teams receive recognition.

Kagan (1990a) has presented a wide variety of possible structures that can be used within the classroom to carry out cooperative learning. These structures include both cooperative and competitive objectives. As with any instructional technique, the impact of cooperative learning depends, to some degree, upon the particular approach used and the efficacy with which it is applied (Kohn, 1991).

The issue of how cooperative learning affects gifted students has received considerable attention. Articles have even been written suggesting how teachers should respond to parents and others who raise questions on the effects of cooperative learning on gifted students (Johnson & Johnson, 1989). Advocates such as Joyce (1991), Johnson and Johnson (1991), and Slavin (1991b) have written specifically on the virtues of CL for gifted students, pointing out how it could be used to meet objectives such as higher-level thinking skills and mastery, and retention of material, while providing opportunities for developing the social skills such gifted students need.

Although there is an impressive literature base covering the utility of CL for improving the achievement level of low- and middle-level achievers, and for increasing the positive feelings of students toward one another (Johnson & Johnson, 1990; Slavin, 1983; Kagan, 1990b), debate continues over the usefulness of this technique with gifted students -- particularly in the heterogeneous grouping model (Allan, 1991; Robinson, 1990; Feldhusen, 1991; Slavin, 1991a, 1991c). The various complaints raised by educators of gifted students revolve around: (a) concern about lack of challenge for the gifted student in the heterogeneous group, (b) the tendency to make gifted students "assistant teachers,"

(c) the likelihood that the gifted students will end up doing the majority of the work for the group, and (d) that the pace of learning will inevitably be too slow for the gifted students.

The current authors embarked on a study to determine if CL programs could also benefit gifted students and to explore the attitudes of professionals from each group (teachers and administrators committed to cooperative learning and teachers and administrators working with gifted students) to see whether their perceptions of cooperative learning and its impact on gifted students differed (Gallagher, Coleman, & Nelson, 1993). A follow-up study involved the observation of five school programs that have been committed to the goals of both CL and gifted education (Coleman, Gallagher, & Nelson, 1993).

Attitude Survey for Cooperative Learning

The first task in the study was to design a survey instrument that could tap the attitudes of random samples of teachers and administrators. In order to ensure adequate coverage of the issue, a questionnaire was sent to 20 acknowledged experts in cooperative learning or in gifted education, asking them to comment upon what they believed were the key issues related to CL and gifted students.

As an initial step to understanding the attitudes of educators from both groups, we developed a survey to identify the areas of concern and agreement on the use of cooperative learning with gifted. Twenty experts in the field of cooperative learning and/or gifted education provided themes representing possible issues. Six major themes were identified through this process: (a) teacher preparation; (b) which forms of CL work best with gifted students; (c) combining CL with gifted education; (d) meeting social and emotional needs of gifted students through CL; (e) evaluation of CL with gifted students; and (f) the use of ability grouping during CL activities.

The first section of the survey contained 27 Likert-type items, which asked respondents to rate their opinions on each item using a four-point scale. In addition, the

respondents were asked to prioritize the six major themes and were invited to make open-ended comments on CL and gifted.

The survey was mailed to 400 participants who were randomly selected from the mailing lists of four organizations (100 to each): The International Association for the Study of Cooperation in Education (IASCE), the Cooperative Learning Network of the Association for Supervision and Curriculum Development (ASCD), The Association for the Gifted (TAG), and the National Association for Gifted Children (NAGC). The return rate of 75% was unusually high and gave us confidence that the results represented the sample we originally polled.

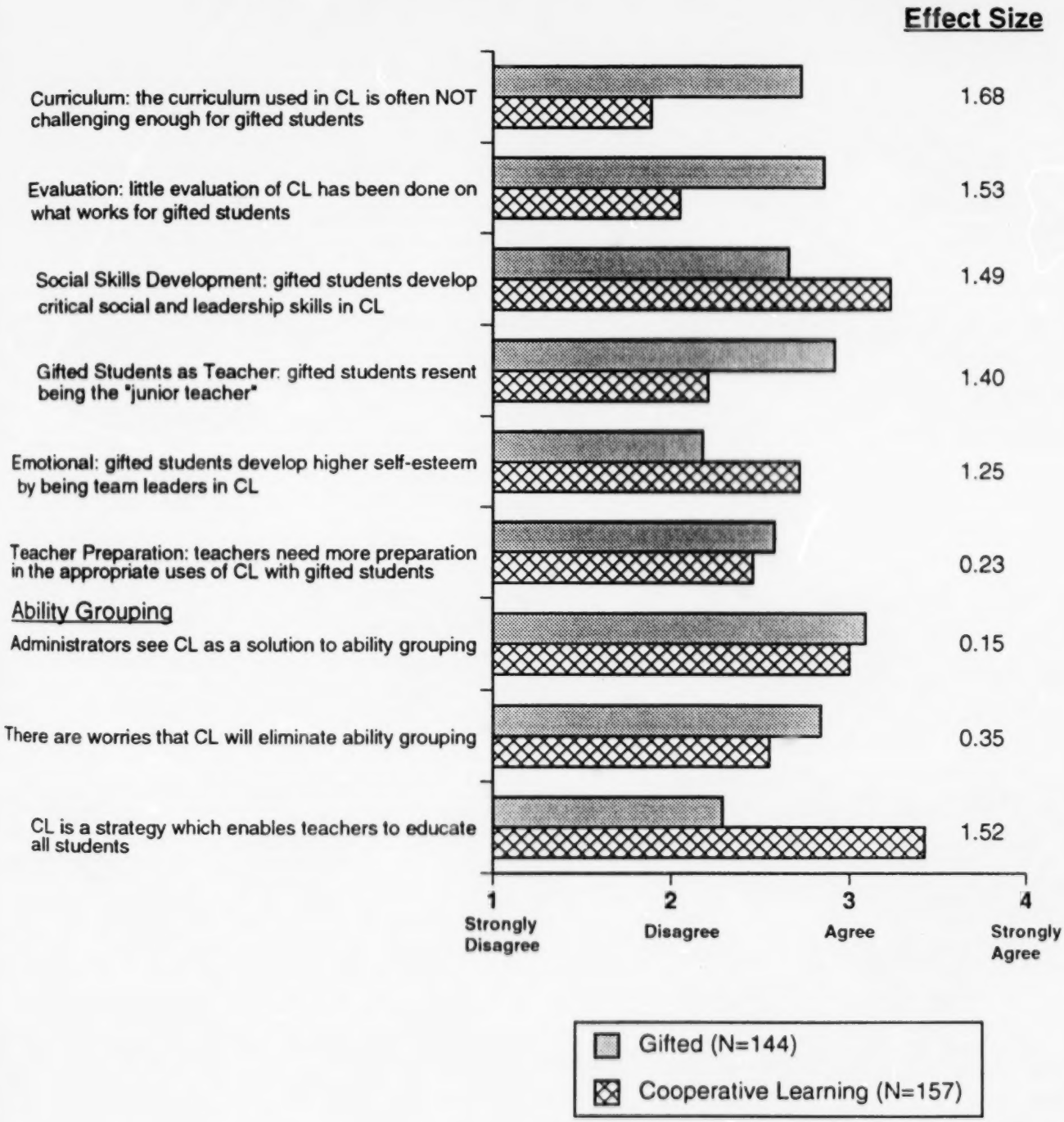
The results from the first section of the survey showed a striking difference in all but two clusters between the two groups responding (See Figure 6). Effect size was used as the statistic best able to describe differences between the groups (Cohen, 1988). The cluster items and explanations follow.

1. Curriculum. The summary statement that typified this cluster was:
   THE CURRICULUM USED IN CL IS OFTEN NOT CHALLENGING ENOUGH FOR GIFTED STUDENTS
   This issue showed the most striking difference between the groups, with an effect size of 1.68 (Effect size represent the difference between the means divided by the standard deviation of the total sample). The gifted and talented (GT) respondents agreed strongly with this statement, but the statement was rejected by the CL group.

2. Evaluation. A summary statement for this cluster was:
   LITTLE EVALUATION OF CL HAS BEEN DONE ON WHAT WORKS FOR GIFTED STUDENTS
   The large effect size of 1.53 again showed strong group differences. The GT group apparently felt that the cooperative learning research had not focused on issues related to gifted students. In contrast, the CL group believed strongly that such attention had been paid.

Figure 6

Response to Item Clusters from Cooperative Learning and Gifted Educators


Effect Size
Curriculum: the curriculum used in CL is often NOT challenging enough for gifted students
1.68
Evaluation: little evaluation of CL has been done on what works for gifted students
1.53
Social Skills Development: gifted students develop critical social and leadership skills in CL
1.49
Gifted Students as Teacher: gifted students resent being the "junior teacher"
1.40
Emotional: gifted students develop higher self-esteem by being team leaders in CL
1.25
Teacher Preparation: teachers need more preparation in the appropriate uses of CL with gifted students
0.23
Ability Grouping
Administrators see CL as a solution to ability grouping
0.15
There are worries that CL will eliminate ability grouping
0.35
CL is a strategy which enables teachers to educate all students
1.52
1
Strongly Disagree
2
Disagree
3
Agree
4
Strongly Agree
Gifted (N=144)
Cooperative Learning (N=157)

3. Social Skills Development. The summary statement typifying this cluster was:

GIFTED STUDENTS DEVELOP CRITICAL SOCIAL AND LEADERSHIP SKILLS IN CL

The topic of social skills development yielded similar differences between the two groups, with an effect size of 1.49. The CL group agreed with the sentiment that gifted students develop critical social and leadership skills through cooperative learning, whereas the GT respondents expressed disagreement or mixed feelings.

4. Gifted Students as Teacher. The summary statement for this cluster was:

GIFTED STUDENTS RESENT BEING THE "JUNIOR TEACHER"

An effect size of 1.40 was found in this cluster. The GT respondents agreed with this statement and seemed concerned that gifted students were often being placed in a role for which they had not been prepared. They also thought that gifted students overall seemed not to relish the role. As a group, the CL respondents were in disagreement with this statement.

5. Emotional. The summary statement for this cluster was:

GIFTED STUDENTS DEVELOP HIGHER SELF-ESTEEM BY BEING TEAM LEADERS IN CL

To the suggestion that gifted students develop critical social and leadership skills through cooperative learning experiences and that they gain higher self esteem by being team leaders, the CL group agreed. The GT group disagreed. The effect size for this comparison was 1.25.

6. Teacher Preparation. This set of items addressed whether or not teachers using cooperative learning meet the needs of gifted students. The summary statement was:

TEACHERS NEED MORE PREPARATION IN THE APPROPRIATE USES OF CL WITH GIFTED STUDENTS

This was one cluster item that yielded little or no differences between the groups. There was general agreement that teachers needed more

preparation in the appropriate uses of cooperative learning with gifted students. The low effect size of .23 indicates this consensus.

7. Ability Grouping. The ability group cluster items did not have sufficient interrelationships (using Cronbach's Alpha) to maintain a cluster and, therefore, the items were analyzed individually.

(A) ADMINISTRATORS SEE CL AS A SOLUTION TO ABILITY GROUPING

There were no essential differences between the groups (effect size of .15) on this item. There was agreement that educational administrators might use CL strategies to eliminate grouping.

(B) THERE ARE WORRIES THAT CL WILL ELIMINATE ABILITY GROUPING

With an effect size of only .35, there was little disagreement between groups that CL could be used as reason to eliminate ability grouping and reduce services for gifted students.

(C) CL IS A STRATEGY THAT ENABLES TEACHERS TO EDUCATE ALL STUDENTS

This was one item related to ability grouping that did show a striking difference between groups. An effect size of 1.52 reflected a strong disagreement. The CL group enthusiastically agreed with the sentiment, while the GT respondents disagreed.

Some striking group differences were found in the prioritizing of the major issues. For the CL educators, the prime issue was teacher preparation, with over 50% of the sample choosing this issue as the most important. In contrast, the GT educators split their concern among several issues. The item named most important (26%) was the appropriate use of grouping with gifted students and CL. Also of concern were teacher preparation and which CL methods work best with gifted students.

Respondents were encouraged to make additional comments at the end of the survey. The written responses paralleled the first and second sections of the survey. There appeared to be a cross-group agreement that more staff development is needed on the appropriate uses of CL with gifted students. There was a marked disagreement between the two groups on the use of CL in specific settings. Some of the GT sample had favorable comments to make about cooperative learning when used with clusters of gifted students, but not when used under the heterogeneous models being supported by many CL leaders.

This survey clearly revealed strongly differing views from the two groups of educators: those supporting cooperative learning and those supporting gifted education. These findings seem to reflect the debate in the literature. No one seems to doubt that CL, as a general approach, is a positive set of instructional strategies. CL makes students more active learners, encourages interaction and cooperation, and appears to improve student morale. What is in dispute is whether this strategy can replace traditional services for gifted students.

The two groups seemed to be responding tot he survey on a holistic basis, with proponents of CL strongly arguing for its benefits while educators of GT students expressed concern about the uses of CL. These opinions seemed to be formed in spite of little research/knowledge about how CL actually affects gifted learners and may stem from the way CL has been used in some school systems to reduce services for gifted and talented students.

Educators of gifted students need to learn more about some of the specific adaptations of cooperative learning. Educators employing CL need to understand the special needs of gifted students for intellectual challenge. With both groups agreeing that teacher preparation is an essential need, it would seem reasonable that this could be a beginning point for a meaningful sharing of ideas and information.

The following recommendations seem warranted on the basis of the survey results:

1. Collaborative planning of personnel preparation opportunities should be carried out, where expertise in both CL and GT education can be shared. These opportunities should address the needs of both pre-service and in-service educators.

2. Research should be initiated to discover the most appropriate ways to address the needs of gifted students through CL, including both heterogeneous and homogeneous grouping formats.

3. Opportunities should be created for leaders in CL to share information with gifted/talented educators and for GT leaders to share with CL groups. This should include cross-fertilization through conferences and publications.

Case Studies -- CL and Gifted Students

The goal in this part of the research (Coleman, Gallagher, & Nelson, 1993) was to find programs and schools that illustrated one of three cooperative learning models: Slavin (1991b), Johnson & Johnson (1990), and Kagan (1990b). These programs would also have been recommended as a strong program for gifted students. We hoped to learn how CL and gifted education could work together to successfully bridge the apparent gulf between these two groups of educators.

Nominations of programs were solicited from professional organizations, state departments of education, and experts in the CL field. We received 19 nominations for schools that met our criteria. Our goal was to identify a sample of the best programs representing the major models for CL (Slavin, Johnson & Johnson, and Kagan). To ensure that the programs selected were "authentic," we consulted CL experts who had worked with their development. Five sites were selected.

Each site visit encompassed a two-day period and involved interviews with key people (the CL resident experts, principals, and gifted education teachers), focus group discussions (teachers and students), classroom observations, and document reviews. Each

visit was attended by at least two staff members, and one staff member participated in all five visits.

Following the site visits, factors believed to be influential to the programs' effectiveness were identified. These factors included: leadership, commitment to gifted students, staff development, availability of resources, attitudes within classrooms, strategies to differentiate CL for gifted students, social dynamics within CL, and an evaluation of services. These factors were rated for each site. A four-point scale (from "critical" to "insignificant") was used to rate each factor according to its influence. The factors found to be critical or very important at all five sites were: leadership from teachers, staff development from both CL experts and "in-house" experts, enthusiasm from teachers and students, and the use of CL in classes where top students were grouped by ability/performance. A detailed description of the individual sites is available from in an extended report (Coleman, Gallagher, & Nelson, 1993).

The single factor that stood out for all the sites was the role of teachers as leaders and the provision of ongoing "in-house" support for the use of CL. This created an atmosphere of enthusiasm that seemed contagious. At all of the sites, CL was used in honors and advanced classes; it was a part of the services provided for gifted students. The CL experiences in these settings were seen as highly satisfactory by the gifted students. Other factors varied in their influence from program to program. The leadership of school and central office administration, a commitment to gifted students, CL support groups, resources available, level of trust, and the role of social dynamics in the CL program ranged from "critical" to "somewhat important."

Several strategies had been specifically developed to meet the needs of gifted students. These strategies included: differentiating tasks by complexity, using open-ended or creative tasks, incorporating independent work, allowing for self-pacing (e.g., Slavin's Team Assisted Instruction), offering challenging bonus questions, forming expert groups, using interest-centered activities, forming cluster groups according to ability, using jigsaw

methods, assigning specific roles to gifted students, forming cross-grade groups, using the Team Games Tournament model, and allowing students to select their own groups.

The programs visited clearly showed how CL can work with gifted students. In settings where CL was used with students grouped by ability, gifted students seemed to thrive. In heterogeneous settings, gifted students identified several concerns. These included: having to fill the "teacher" role, doing "all" the work, receiving lower grades, doing "easy" stuff, and feeling uncomfortable if they appeared too "smart." In spite of these concerns, however, when asked what they would do if CL was going to be abolished, they responded that they would protest vigorously.

Cross Site Analysis

The results obtained from the individual sites were then combined for the five schools. The results of this synthesis can be seen in Figure 7. The results clearly show that education for gifted students and cooperative learning can be successfully blended. Cooperative learning is a very successful model in classes where students are homogeneously grouped by ability (honors, advanced, accelerated, and/or gifted classes), and it should be used in these settings whenever it is appropriate. We also learned that, although there are some concerns about gifted students when CL is used in heterogeneous settings (i.e., pace and level of lesson, the role of gifted students), these activities are still generally beneficial. If additional services for gifted students are available, the benefits of CL seem to outweigh the drawbacks.

The need for overt and careful planning that does not overlook the needs of gifted students was critical to the success of the programs we visited. At each site visited, services for gifted learners continued along with -- and even contributed to -- the overall CL program. The early planning for CL included careful attention to personnel preparation to ensure that teachers had a solid base for the implementation of the CL model. The use of

Figure 7
Key Factors Present in the Success of Cooperative Learning Programs for Gifted Students*

	A (Critical)	B (Very Important)	C (Somewhat Important)	D (Little or No Importance)
1. Leadership				
Central Office Administration	••	••	•	
School Site Administration	•••	•	•	
Teachers +	••••	•		
Parents/Advocates			•	••••
2. Commitment to Gifted Students				
School Site	••••		•	
School System	••		•••	
3. Staff Development				
CL from "Experts" +	••••	•		
CL from "In-house" +	••••	•		
CL Support Strategies	••	•	••	
GT Student Needs	•	••		••
4. Availability of Resources				
Materials/Physical	••		•••	
Expertise/Human	•••	•	•	
Time for Planning		••	••	•
5. Attitude Within Classrooms				
Enthusiasm (Students) +	••••	•		
Enthusiasm (Teachers) +	••	•••		
Trust	•••	•	•	
6. CL Differentiation for Gifted				
Class Grouped by Ability/Performance +	••••	•		
Homogeneous CL Grouping (in regular class)		••	•	••
Individualized Assignments in CL Groups		••	••	•
Flexible Pacing/Self Pacing (TAI, etc.)		••		•••
Self Selected Groups		•	•	•••
Complexity		••••	•	
7. Social Dynamics				
Overt Teaching of Socialization Skills	•••		•	•
Assignment of "Social" Roles	••		••	•
Team Building		••	••	•
Class Building			••	•••
Evaluation of Social Skills	••		•	••
8. Evaluation				•••••

* Each dot (•) represents one school

+ shaded descriptions indicate factors that were critical or very important in all schools

"expert" teachers who provided ongoing support and site-based staff development allowed the programs to grow.

Cooperative learning has much to offer to teachers and students, and this includes gifted students. Further collaboration and cooperative efforts between proponents of gifted education and educators espousing cooperative learning can, and should, lead to fruitful experiences for all.

D. Final Comments and Recommendations

Our exploration into the construction of state policies related to the identification of "hidden gifted" students has led us to one particular conclusion. In order for words to be translated into action, there must be an accepted action mission on the part of key persons in the state. Many states had words in their legislation, rules, and regulations stressing the importance of seeking out students of potential from families of different cultural and ethnic backgrounds. Such words, stressing equity and a broader conceptualization of giftedness, present an opportunity to many previously "hidden" gifted. That opportunity, however, must be seized. In the three case study states that we examined, a variety of persons inside and outside government took it upon themselves to create a different environment that allowed for the implementation of these stated policies.

Similarly, many educators in the schools that represented good practice for educational reform, and for gifted students, took it upon themselves to do more than decry the lack of interest in gifted students by the reform movement on one hand, or the rigidity of established practice for gifted students on the other. They actively sought a way to blend the best of the ideas from both sides of the issue, and -- from our observations -- they have succeeded.

What do all the results on middle schools and cooperative learning mean for school reform and gifted students? First, it is clear that it is possible for good programs for gifted students to be provided within the context of the middle school, as well as within the strategic approach of cooperative learning. Furthermore, there are many ways to obtain such a result, proven by the fact that we found many different versions of such combined programs. The antagonism sometimes found between the various professional groups involved in this situation seems unwarranted, or at least unnecessary.

It should be hastily added, however, that this happy combination of a strong program for gifted students and a valid middle school or cooperative learning program does not happen by accident or by chance. There was a broad range of testimony to the

effect that such a finding was the result of careful and thoughtful professional planning. This planning was necessary so that the gifted students would have the intellectual and academic challenge that is their due within the framework of the educational reform effort.

If there was one conclusion that practically everyone whom we talked to provided us, it was the overriding importance of adequate personnel preparation. In the case of the middle school, there was careful planning during the period when the schools moved from previous models to the current ones, with many opportunities for staff to prepare for the new models. Sometimes that meant over a year in preparation, but few persons complained about any overdose of preparation for the new roles.

Similarly, cooperative learning was viewed by its advocates as a sophisticated and complex series of strategies and skills, the complexities of which are often underestimated by those viewing the strategy from afar. One of the most plaintive complaints of those who strongly favor cooperative learning is that so many educators maintain that they are using cooperative learning when in reality they are merely doing "small group work." Sometimes that appears to give "cooperative learning" a bad name. At any rate, there is a recognized need for strong preparation for those prepared to embark upon a cooperative learning module.

Those schools that appear to be adopting this approach successfully seem to have strong on-site teacher experts. These schools generally have a teacher, or a group of teachers, with extensive training in the CL model that the school is following. These on-site CL "experts" stand ready to help other teachers. The very presence of these "experts" seems to embolden the other teachers, who know that there is someone around to pull them out of a hole if they unknowingly stumble into one.

For many years now, the field of education of gifted students has tended to drift apart from the general education program. This happened not through a predetermined purpose, but was due to the devices used to provide specialized experience for gifted

students (the resource room, the honors class, etc.). These classes, in many instances, separated professionals working with gifted students from general education personnel.

This series of studies reported here has indicated that there can be a healthy blending of reform ideas and strong programs for gifted students. These studies have also reminded us of how carefully such advances must be nurtured. The need for the full use of the outstanding talents of gifted youngsters would seem to be greater than ever as we transition from the "industrial age" to the "information age."

In some fashion or other, there will be differentiated programs for gifted youngsters in the future that allow them full development of their abilities. Our society has a way of accomplishing, however hesitantly, those things necessary for its survival and progress. The challenge for educators is how to design such programs for gifted students so that they merge effectively with the new educational program now being designed for all students.

Recommendations for the Future

We would like to propose some possible recommendations for next steps to help ensure that the desirable outcomes noted in the above paragraphs are more likely to come about.

(1) Continued advocacy and proactive work towards the identification of gifted culturally diverse, economically disadvantaged, and disabled students, drawing on and implementing promising practices.

(2) Creating and using multiple vehicles for collaboration (annual conferences, task forces, joint dissemination, etc.) between educators in gifted and school reform areas at all levels -- local, state, and national.

(3) Providing extensive personnel preparation opportunities on the needs of gifted students, with particular attention to gifted education in the context of school reform.

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